

REMARKS

The Official Action mailed June 10, 2004, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to October 10, 2004. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statement filed on August 28, 2001.

Claims 1-3, 5-7 and 35-73 were pending in the present application prior to the above amendment. Claims 3, 6, 37, 44 and 49 have been canceled, claims 1, 2, 35, 36, 42, 43, 47, 48, 54, 55, 58 and 59 have been amended to better recite the features of the present invention and new claims 74 and 75 have been added to recite additional protection to which the Applicant is entitled. Accordingly, claims 1, 2, 5, 7, 35, 36, 38-43, 45-48 and 50-75 are now pending in the present application, of which claims 1, 35, 42, 47, 54 and 58 are independent. Claims 62-73 have been withdrawn from consideration. Accordingly, claims 1, 2, 5, 7, 35, 36, 38-43, 45-48, 50-61, 74 and 75 are currently elected, of which claims 1, 35, 42, 47, 54 and 58 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

The specification has been amended to correct minor typographical errors. Specifically, the paragraphs at page 4, lines 4-19, have been amended to reflect the actual numbering of the figures, and the paragraph beginning at page 7, line 4, has been amended so that the chemical formulas of NiP_2 and Ni_2P properly include subscript text for "2" and so that the description of regions 100 and 109 in the specification is technically correct, internally consistent and matches Figure 1D.

Paragraphs 2-8 of the Official Action reject claims 1-3, 5-7 and 35-73 as obvious based on JP 408213317 to Yamazaki et al., either alone or in combination with one or more of the following: U.S. Patent No. 5,459,090 to Yamazaki et al., U.S. Patent No. 5,764,321 to Koyama et al., U.S. Patent No. 5,426,064 to Zhang et al. Specifically,

paragraph 2 of the Official Action rejects claims 1, 3, 5 and 6 as obvious based on Yamazaki '317; paragraph 3 of the Official Action rejects claims 2, 7 and 54-57 as obvious based on the combination of Yamazaki '317 and Yamazaki '090; paragraph 4 of the Official Action rejects claims 35-41 as obvious based on the combination of Yamazaki '317, Yamazaki '090 and Koyama; paragraph 5 of the Official Action rejects claims 42, 44 and 46 as obvious based on the combination of Yamazaki '317 and Zhang; paragraph 6 of the Official Action rejects claims 43, 45 and 58-61 as obvious based on the combination of Yamazaki '317, Zhang and Yamazaki '090; paragraph 7 of the Official Action rejects claims 47, 49 and 51-53 as obvious based on the combination of Yamazaki '317, Zhang and Koyama; and paragraph 8 of the Official Action rejects claims 48 and 50 as obvious based on the combination of Yamazaki '317, Zhang, Yamazaki '090 and Koyama. The Applicants respectfully submit that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 1, 35, 42, 47, 54 and 58 have been amended to recite that a source region and a drain region comprise a nickel phosphide (page 6, line 14 through page 7, line 18 of the specification). Also, independent claims 1, 35 and 42 have been amended to recite "tantalum" in lieu of "heat-resistant material" and "nickel" in lieu of "crystallization promoting material." Further, independent claim 47 has been amended to recite "nickel" in lieu of "crystallization promoting material." Still further, independent claim 58 has been amended to recite first and second insulating layers. Yamazaki '317, Zhang, Yamazaki '090 and Koyama, either alone or in combination, do not teach or suggest at least the above-referenced features of the present invention.

Since Yamazaki '317, Zhang, Yamazaki '090 and Koyama do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

New claims 74 and 75 have been added to recite additional protection to which the Applicants are entitled. For the reasons stated above and already of record, the Applicants respectfully submit that new claims 74 and 75 are in condition for allowance.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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